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Issued April 1983

Recent Trends in Clothing and Textiles¹

By Joan C. Courtless
Family economist

CLOTHING EXPENDITURES AND PRICES

Annual spending for clothing and shoes in 1982 is estimated at \$511 per person, according to preliminary figures for the first three quarters of 1982 (table 1). This amount exceeds 1981 spending by \$12 per person; 83 percent of this increase can be attributed to higher prices and 17 percent to increased buying. The percentage of total personal consumption expenditures in current dollars allotted to clothing and shoes has declined since 1960, reflecting the fact that clothing prices have increased at a lower rate than prices for other items. When the effect of inflation is removed (shown by constant dollars in table 1), the percentage of personal consumption expenditures for clothing and shoes remains relatively steady. Possible reasons for this include a trend toward upgraded clothing, more women in the labor force, and increasing numbers of young adults who are likely to have greater clothing requirements than are other segments of the population.

Apparel and upkeep prices in 1982, as measured by the Consumer Price Index (CPI), increased 2.4 percent over those in 1981. This increase was less than the 6.5-percent increase for the "all items" category during the same period (table 2). Within the CPI clothing and footwear categories, men's and boys' furnishings and women's and girls' underwear, nightwear, and hosiery increased

¹Information in this article is based on reports available during the period January through October 1982. Discussion of business trends is based on trade reports or news items in *The Daily News Record*, *The Wall Street Journal*, *The Washington Post*, *Women's Wear Daily*, *The New York Times*, *The Kiplinger Washington Letter*, *Business Week*, and *Knitting Times*. Other sources are included in "Selected References" at the end of this article.

relatively more than other clothing items between September 1981 and September 1982 (table 3).

The average family's purchasing power, as measured by real income, decreased by 3.5 percent from 1980 to 1981, following a 5.5-percent drop from 1979 to 1980 (11). A Gallup poll conducted in June 1982 found that 48 percent of those interviewed believed inflation would continue to negate any income gains during the next year. This same poll found that only 37 percent of the persons interviewed thought the present was a good time to buy furniture, a car, and other major items. Retailers were optimistic that the tax cut which took place on July 1, 1982, would boost apparel and other soft goods sales. In August the stock market became active and "bullish", interest rates declined in September, and the annual rate of inflation continued to decline to about the 5-percent level. These factors added to retailers' expectations for improved sales. However, August and September sales proved disappointing; rising unemployment kept consumers cautious and reluctant to increase their spending levels.

TRENDS IN FIBERS, FABRICS, AND APPAREL

Recent research on nylon has produced a new process which reportedly gives nylon the absorbency characteristics of cotton. Developed and marketed by International Yarn Corporation, the process (Intera) is used after the nylon fibers have been knitted or woven into fabric. The fabric is available in knit shirts, blouses, active sportswear, swimwear, leotards, underwear, hosiery, and towels.

A technique for crimping raw silk has been developed in Japan. The crimped raw silk has stretch, increased bulk, crease retention properties, and resistance to abrasion; and it repels water. Research on washability is underway.

PROFILE OF AMERICAN SHOPPERS

Many facets of apparel consumers were studied throughout the year by R.H. Bruskin Associates in Daily News Record-OmniTel telephone surveys (3). Each survey interviewed a nationally representative sample of men and women.

Highlights of some of the surveys showed that:

- Over one-half of the men and women believed the quality of apparel in stores today to be inferior to that of 5 years ago.
- Only 10 percent believed apparel prices were increasing at a rate slower than that of nonapparel items; whereas 44 percent believed apparel prices had increased at a faster rate. (For many years, apparel prices have increased less than prices of nonapparel items.)
- About 60 percent said they preferred to shop in a store which is mostly self-service rather than in a store where a salesperson usually assists them.
- Women were more likely than men (65 percent versus 55 percent) to delay (sometimes or always) apparel purchases until sales are run.
- When asked whether credit cards were used to pay for apparel, 55 percent replied affirmatively. About 25 percent said they were using credit cards less often than they had during the previous year.
- Over 40 percent said they have become increasingly disappointed lately when shopping for a specific item because the retailer was either out of stock of that item or no longer carried a large selection.
- Almost 75 percent of those surveyed believed American-made apparel to be a better value than imported apparel.¹

¹Similar results were obtained in a study by Dickerson done at the Virginia Polytechnic Institute and State University, with support from the U.S. Department of Agriculture, of 1,350 consumers in 32 States (4); almost half found the quality of imported apparel to be inferior to domestic products.

Fabrics made of all-natural and mostly natural fibers (reverse blends) are becoming more important in retailers' better apparel lines. Fabrics with a higher percentage of manmade fibers than natural fibers still dominate the moderate and popular price lines.

Market share of cotton and cotton blends

Item	1981	1974-75
		<u>Percent</u>
Men's knit shirts	50	37
Men's dress shirts	34	24
Men's slacks	20	10
Women's apparel	25	16

Source: Market Research Corporation of America, Stamford, Conn.

Blends with a high percentage of cotton combine the feel and comfort of cotton and the ease of care common to manmade fibers. Cotton Incorporated and some individual manufacturers have obtained trademarks for blended fabrics containing mostly cotton. Nineteen of the largest manufacturers of men's shirts report retailers have ordered a mix of merchandise consisting of 13 percent all cotton, 42 percent mostly cotton blends, and 45 percent mostly polyester blends including 0.3 percent all polyester.

Table 1. Annual expenditures on clothing and shoes¹

Year	Per capita expenditures ²		Percent of expenditures for personal consumption		Aggregate expenditures	
	Constant dollars	Current dollars	Constant dollars	Current dollars	Billions of constant dollars	Billions of current dollars
	(1972)		(1972)		(1972)	
1960	203	148	8.1	8.2	36.6	26.7
1961	203	149	8.1	8.2	37.3	27.4
1962	209	154	8.1	8.1	38.9	28.7
1963	209	156	7.9	7.9	39.6	29.5
1964	222	166	8.1	8.0	42.6	31.9
1965	227	172	7.9	7.8	44.2	33.5
1966	239	186	8.0	7.9	46.9	36.6
1967	236	192	7.8	7.8	46.9	38.2
1968	242	208	7.7	7.8	48.6	41.8
1969	245	223	7.6	7.8	49.6	45.1
1970	240	227	7.4	7.5	49.2	46.6
1971	249	244	7.5	7.6	51.6	50.5
1972	264	264	7.5	7.5	55.1	55.1
1973	281	291	7.7	7.6	59.2	61.3
1974	279	308	7.8	7.3	59.1	65.3
1975	288	328	7.9	7.2	61.4	70.1
1976	293	345	7.7	6.9	63.8	75.3
1977	306	375	7.8	6.9	67.5	82.6
1978	331	415	8.1	6.9	73.6	92.4
1979	341	440	8.3	6.6	76.7	99.1
1980	343	460	8.4	6.3	78.0	104.7
1981	360	499	8.7	6.2	82.7	114.6
1982 ³	362	511	8.8	6.1	84.0	118.5

¹Includes yard goods, but excludes services such as cleaning and repairing clothing and shoes.

²Calculated by dividing aggregate expenditures for each year by population figures for July of each year.

³Preliminary figures--average of estimates for first 3 quarters of 1982 (i.e., seasonally adjusted quarterly totals at annual rates).

Sources: U.S. Department of Commerce, Bureau of the Census, 1982, Population estimates and projections, Current Population Reports, Series P-25, No. 920. U.S. Department of Commerce, Bureau of Economic Analysis, 1982, Survey of Current Business 62(7):38-39 (table 2.2), and personal communication.

OUTLOOK FOR RAW MATERIALS

The 1982 U.S. mill use of total fibers is estimated at 44.4 pounds per capita. This includes 10.7 pounds of cotton, 0.5 pound of wool, and 33.2 pounds of manmade fibers. Per capita use in 1981 was 50.4 pounds, including 11.8 pounds of cotton, 0.6 pound of wool, and 38.0 pounds of manmade fibers. Growth in world population and income will increase fiber demand by 20 billion pounds, to 88 billion pounds in 1990.

Cotton

The 1982 domestic cotton crop is expected to be about 11.4 million bales, down 27 percent from last year. The average yield per acre increased from 543 pounds in 1981 to a record level of 563 pounds in 1982 (see box on p. 7). Because total acreage devoted to cotton throughout the world will decline, cotton will provide only about one-quarter of the additional fiber required by 1990. The World Bank estimates that by 1985 both the U.S.S.R. (with 6.8 billion pounds) and China (with 6.2 billion pounds) will produce more cotton than the United States (5.9 billion pounds).

During the first 7 months of 1982, the price of cotton averaged 69 cents a pound, 20 cents less than for the same period in 1981. A large carryover stock of cotton from the 1981-82 season could keep the total supply for 1982-83 from declining more than 3 percent. This may prevent cotton prices from rising in 1983.

Wool

U.S. wool production for 1982 is estimated at less than 1 percent below the 1981 yield and 4 percent above the 1980 yield. Mill consumption of apparel wool for the first 8 months of 1982 was 16 percent below that of a year earlier. Imports of raw wool for apparel in the first 6 months of 1982 were 10 percent below imports for the same period in 1981.

U.S. farm prices for wool in the first 7 months of 1982 were about 12 cents per pound lower than for the same period in 1981. Contributing to this decrease were a drop in demand for women's wool coats and the medium wools used in them; a devaluation of the Australian dollar, which reduced the price of Australian wool; and the importing of low-priced wool from Argentina.

Table 2. Annual percentage change in selected indexes of consumer prices

Consumer Price Index	1978	1979	1980	1981	1982 ¹
All items	+7.6	+11.5	+13.5	+10.2	+6.5
Apparel and upkeep	+3.4	+4.3	+6.6	+5.2	+2.4
Men's and boys' clothing	+2.3	+2.5	+4.6	+5.3	+3.5
Women's and girls' clothing	+1.8	+1.5	+2.4	+3.1	+.8
Infants' and toddlers' clothing ²	--	+3.5	+9.8	+10.9	+2.9
Footwear	+4.0	+8.0	+8.0	+5.4	+3.4
Other apparel commodities ³	-.1	+7.4	+16.3	+2.8	-2.3

¹Preliminary estimates--average for first 9 months of 1982 compared with the average for first 9 months of 1981.

²Developed in 1978.

³Includes sewing materials and notions, jewelry, and luggage.

Source: U.S. Department of Labor, Bureau of Labor Statistics, 1982, News, Consumer Price Index (monthly issues), and personal communication.

Table 3. *Percentage change in selected index of consumer prices from September 1981 to September 1982*

Consumer Price Index	Percentage change
All items	+4.9
Apparel and upkeep	+1.9
Men's and boys' clothing	+2.9
Men's	+2.8
Suits, sport coats, and jackets	+1.4
Coats and jackets	+3
Furnishings and special clothing	+5.7
Shirts	+1.9
Dungarees, jeans, and trousers	+3.0
Boys'	+3.0
Coats, jackets, sweaters, and shirts	+2.0
Furnishings	+6.4
Suits, trousers, sport coats, and jackets	+2.5
Women's and girls' clothing	+5
Women's	+6
Coats and jackets	-5
Dresses	-2.8
Separates and sportswear.....	-7
Underwear, nightwear, and hosiery.....	+5.5
Suits	-2.7
Girls'	+1
Coats, jackets, dresses, and suits	-2.7
Separates and sportswear.....	-1.4
Underwear, nightwear, hosiery, and accessories	+6.9
Infants' and toddlers' clothing	+3.0
Other apparel commodities	-2.3
Sewing materials and notions	+3.1
Jewelry and luggage	-4.4
Footwear	+1.8
Men's	+3.4
Boys' and girls'	+9
Women's	+1.0

Source: U.S. Department of Labor, Bureau of Labor Statistics, 1981, CPI Detailed Report September 1981, and personal communication.

FEDERAL DETERRENTS AND INCENTIVES FOR FIBER PRODUCERS

In 1982, the U.S. Department of Agriculture required farmers who wished to participate in the voluntary crop set-aside program to cut back cotton acreage by 15 percent. The Government goal was to bring 1982 cotton production levels down to the 10- to 11-million-bale level of 1980. By July 1982, USDA estimated cotton acreage had been reduced by 19 percent.

The USDA Federal wool incentive program that supports the price of wool, encouraging sheep farmers to increase wool production, may be modified in the near future. The program was initiated in 1954 and has cost about \$2 billion to date. Wool production has dropped from 283 million pounds in 1955 to 106 million pounds in 1980. Since wool producers get about three-fourths of their income from sheep raising by selling lambs for slaughter, most sheep-raising decisions are based on the outlook for profits in lambs rather than on the wool incentive program. Therefore, the original goals of the program lack validity in the current market.

For the first time in 10 years, Federal incentive payments to mohair growers were restored in 1981, and again in 1982, because the market price of mohair fell below certain predetermined levels (\$3.74 and \$3.98 a pound, respectively).

Manmade Fibers

Shipments of manmade fibers by U.S. producers during the first 8 months of 1982 were 21 percent below shipments a year earlier and 24 percent below the 1979 level.

Two studies (5, 6) project continued growth for manmade fibers. In 5 years world production of these fibers will increase by 40 percent; for example, polyester will increase by 62 percent and acrylic fibers by 27 percent. By 1998 world consumption of manmade fibers will be 87 percent higher than that in 1980.

Mohair

U.S. mohair production is expected to increase by one-fourth by 1985. South Africa, Turkey, and the United States are the leading producers of mohair. Japan, the United States, and West Germany are the greatest mohair consumers. U.S. exports of mohair in the first 6 months of 1982 were 15 percent higher than the January to June average of the previous 5 years. Over half of the exports were shipped to the United Kingdom.

Demand outlook for mohair is favorable because it can be used in place of alpaca, cashmere, and camel hair. About two-thirds of all mohair is used for women's apparel.

DEVELOPMENTS IN THE EXPORTING AND IMPORTING OF FIBERS, FABRICS, AND APPAREL

U.S. textile trade deficit for the first half of 1982 was 78 percent higher than that for the same period in 1981. The strong U.S. dollar during 1982 made U.S. goods more expensive to foreign countries and foreign goods less costly for the United States. Total textile exports declined by one-third, but total imports declined by only 0.5 percent. Apparel imports for the first 8 months of 1982 were up 11 percent from imports for the same period in 1981. Manmade fiber apparel contributed the most to this increase; woolen apparel imports declined slightly, although imports of woolen fabrics increased over 10 percent.

Percentage change in imports from January-August 1981 to January-August 1982

Fiber	Textiles and apparel	Apparel only
Cotton	-1.3	+7.1
Wool	+10.5	-1.2
Manmade	+9.8	+13.5

Source: U.S. Department of Commerce, Office of Textiles and Apparel.

The August 1982 level of imports was equivalent to 724,000 fiber-textile-apparel jobs according to James A. Chapman, Vice President of the American Textile Manufacturing Institute. Unemployment for the textile and apparel industries in October 1982 was 14.1 percent and 16.1 percent, respectively. Although the U.S. wage scale compares favorably to that of most European nations, labor costs in the Far East are generally much lower than in the United States. Wage costs in China are the equivalent of 20 cents an hour. It has been predicted that within the next 10 to 25 years--depending on the extent of trade restraints imposed by the Federal Government--half of the apparel consumed annually in the United States will be imported.

In the first quarter of 1982, 60 percent of U.S. apparel imports came from Taiwan, Hong Kong, and South Korea, and 8 percent came from China. The percentage imported from China has been increasing because of its enormous production capabilities and the lack, as yet, of specific limits for China on most categories of textiles and apparel covered by the Multi-Fiber Arrangement.² The International Trade Commission predicts that China may become the world's largest exporter of textiles and apparel by 1985. China is also a major exporter of silk and down. Almost three-quarters of silk imports in the United States are from China. Imports of raw silk for the first 8 months of 1982 were 10 percent higher than the 1981 level for the same time period. Outerwear with a down fill will cost more in 1982-83 because China, the source of one-third of U.S. down imports, increased its price for down by 5 to 10 percent in 1982. China withheld its down from the international market this past season and exported its own quilted garments. Many U.S. outerwear manufacturers have switched from down to manmade fiberfill.

² Negotiations for a bilateral textile agreement with China were initiated in September 1982.

MODIFICATION OF FEDERAL REGULATIONS RELATED TO TEXTILES AND APPAREL

The Export Trading Company Act

The Export Trading Company Act, designed to encourage exports of American-made merchandise, became law in October 1982. Companies that compete in the U.S. domestic market will be allowed to join together to form an export trading company without violating antitrust and price-fixing regulations. This legislation permits banks to own equity and to participate as partners in an export trading company for the first time.

The U.S. Department of Commerce plans to publish initial guidelines and regulations in the Federal Register early in 1983. Commerce officials are hopeful that 500,000 jobs and \$50 billion in added exports could result from implementing this act.

Flammable Fabrics Act

The Consumer Product Safety Commission (CPSC), in August 1982, proposed a major revision of its textile flammability standards, which would allow manufacturers of most textiles to determine for themselves how often to test fabrics to guarantee compliance with flammability laws. The period during which records of these tests must be retained would be reduced from 3 years to 1 year. In addition, CPSC proposed that certain fabrics, having once passed, be exempt from additional testing. These would include all fabrics made of acrylic, modacrylic, nylon, olefin, or polyester, plus all plain-surface fabrics weighing 2.6 ounces or more per square yard regardless of fiber content.

The CPSC also proposed permitting textile firms to design their own test methods and equipment, as long as they are at least as stringent as the prescribed Government procedures. Various manufacturers have stated their costs would be reduced if they could use their own test methods. Under the proposed plan, the CPSC would continue to monitor compliance with its flammability standards using its own test methods. Currently, the CPSC is testing procedures developed by the industry for reducing the flammability of upholstered furniture. Since October 1981, the industry has been voluntarily seeking methods of reducing the risk

of upholstered furniture catching fire from cigarettes. The two procedures being tested include: Placing a narrow strip of aluminum foil in the welt, or rounded seam, which runs along cushion perimeters and other edges of most upholstered furniture; and using artificial fibers (which tend to resist igniting) to construct the tightly woven inner wrapping under the upholstery.

A Federal appeals court ruled that the CPSC could not use the criteria it established in 1980 to decide whether "borderline" garments, not usually considered sleepwear and including thermal underwear, are actually intended for use as sleepwear and subject to the children's sleepwear flammability standards. Since children's thermal underwear is specifically exempt from sleepwear flammability standards, the appeals court ruling eliminates further CPSC action on children's thermal underwear unless a formal rule is adopted under established procedures set forth in the Flammable Fabrics Act.

Care Labeling Rule

The care labeling rule requires wearing apparel and piece goods used to make wearing apparel to have a care label attached that specifies a satisfactory method for cleaning the product. In 1982 the Federal Trade Commission (FTC) voted not to include leather and suede apparel, upholstered furniture, linens, yarns, and curtains and draperies.

The Bureau of Consumer Protection was directed by the FTC to determine if there are special problems associated with the proper care of leather and suede wearing apparel, carpets, and upholstery.

The FTC suggests that the current rule be amended to clarify the type of information that should be contained in each instruction, that standardized language be used in phrasing the instruction; and requires a reasonable basis of accuracy for each instruction. Suggestions made by FTC and recorded in the minutes are subject to congressional action before becoming rules.

Cancer Risk from Apparel Finishes

The CPSC expects to expand its investigation of possible cancer hazards in apparel finishes. In fiscal year 1983 CPSC-sponsored research (conducted in part by the USDA textile research laboratory in New Orleans) will examine the amount of formaldehyde released from durable press apparel and will determine whether it can then be absorbed through the skin in amounts that could be dangerous.

The CPSC also plans to continue investigations into the possible cancer risks posed by benzidine dyes used for home dyeing of fabrics and found in manufactured apparel. Other dye products will be selected for additional testing.

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Family Financial Management Curriculum Sourcebook¹

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In May 1982 the U.S. Department of Agriculture funded a special needs project to develop a curriculum sourcebook on family financial management. The sourcebook is to be made available to Cooperative Extension Service agents and specialists to use in helping families with varied and complex economic problems. Extension staff will have the option of using the sourcebook to identify program content and evaluation strategies. Since the content of the sourcebook is broad in scope, it can and should be used

¹This article is abstracted from a paper presented at the Agricultural Outlook Conference in November 1982 at Washington, D.C. Complete copies are available from Family Economics Research Group (see inside front cover for address).

along with other curriculum guides over the next decade. The project is also intended to provide the Extension Service at the Federal level with a structure to document the work of home economics agents and specialists in assisting families.

The sourcebook project is being developed with grass roots planning. This type of planning has been used in the past successfully to describe the outcomes and impacts of Extension programs. An advisory committee with representation from the various regions of the country and agencies in U.S. Department of Agriculture guides the project. The committee is composed of seven family economists, consumer economists, and family resource specialists; one agricultural economist; one home economics administrator; and three Federal level representatives, one each from Agricultural Research Service, Extension Service, and Cooperative State Research Service. Project results are expected to be distributed in the spring of 1983, with copies sent to Cooperative Extension Service home economics staff. If requested, every State will receive sourcebooks for each county office, specialist, and State leader. An assessment of the overall usefulness of the sourcebook will be made in the late fall of 1983 or early spring of 1984.

The sourcebook contains four sections: A subject matter outline, research information, statistical data, and priorities. The outline (see table 1) in section 1 is used as the organizing feature of the research and data sections. This enables users to identify completed and ongoing work in each subject matter area as well as voids in family financial management research.

In addition to the basic outline, section 1 includes a brief narrative relating to each portion of the outline and a list of resources that can be used in teaching or delivering material to clientele. The narrative is not detailed enough to teach a lesson, but it provides some understanding of the principle(s) related to

each part of the outline. The list of resources includes suggested publications from Extension, business, industry, and other educational program units. Publications proposed were screened by selected members of the advisory committee.

To assess whether the outline was usable by agents, 12 randomly selected agents from Indiana and Illinois were given a list of 13 clientele problems. They were asked to locate in the curriculum outline where they would find information to respond to a specific question. For example, when asked which section of the outline would be used to obtain information on coping with unemployment, 4 of the 12 agents correctly identified the appropriate section of the outline. Correct responses for the other 12 problems were answered with a range of 1 to 7. As a result of this test, certain aspects of the narrative portion of the outline and the directions on the use of the outline were clarified.

Benchmark research and current research of value to program delivery are identified in section 2 of the sourcebook, and statistical data essential to understanding family financial management content are located in section 3. The latter section includes information such as mean and median income, dollar value of housing, Consumer Price Index, unemployment rates, and labor force participation rates for women. Since the data change frequently, the section also provides suggestions for updating the information on a regular basis. Materials for these sections were suggested by Extension specialists throughout the Nation and other professionals working in the area of family financial management. Proposed materials were reviewed by the advisory committee, which established criteria for the selection of research or data considered critical to the subject matter.

Priorities for the decade are identified in the fourth section of the sourcebook. The priorities are based on responses to a letter sent to specialists throughout the Nation asking for personal or State priorities for the decade. The suggestions were arranged by the advisory committee into three time-related priorities--one each for 1983-85, 1986-88, and 1989-91 (table 2).

Evaluation strategies relating to the general expected behavior of people who improve their family financial management skills are included for each of these three priority areas.

Table 1. *Financial resource management topic outline*

I. Financial management
A. General management process
B. Specific skills
II. Regulation, market conditions, and public policy
A. Regulation and safety of consumer goods (including services)
B. Consumer rights and responsibilities
C. Price and market conditions
D. International/national trade interaction with family economic well-being
E. Policy issues
III. Family resources: Money, personal and real property, knowledge, skills, time, and personal energy
A. Identifying resources available for meeting family goals
B. Money--income flow

Table 2. *Priorities established for the period 1983-91*

Year	Priority
1983-85	To improve management skills to maximize and extend income to help families cope with changing family circumstances and economic conditions.
1986-88	To develop skills in use of technology to conserve, use, and manage family financial resources.
1989-91	To develop family-member skills in identification of the constraints that government places on consumers in the selection of consumer goods (including services), e.g., housing, food, clothing, and transportation.

USDA 1983 Family Food Plans

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The USDA family food plans have been revised. Starting in 1983, the revised food plans will replace the food plans developed in 1974-75 as the basis for the "Cost of Food at Home," released monthly by USDA.¹ This article describes the 1983 low-cost, moderate-cost, and liberal food plans; and why and how they were revised.

What Are the USDA Food Plans?

The food plans are sets of nutritious diets at four costs levels--thrifty, low, moderate, and liberal. The food plans and the total costs of foods in the plans have been used as standards of family food use and food costs since the midthirties. The food plans are used by State and private institutions to plan food purchases, and by lawyers to establish dependency rates. The U.S. Department of Labor, Bureau of Labor Statistics (BLS), used the three most costly food plans as the food components of their family budgets.² An earlier food plan--the economy plan--is at the core of the Federal poverty thresholds. USDA uses the cost for the thrifty food plan as the basis for the coupon allotment for the Food Stamp Program.

Each food plan specifies the amounts of foods of different types (food groups) to buy to provide nutritious diets for men, women, and children of different ages (tables 1 to 3). Amounts in each food group can be totaled for persons of the sex and

age of family members to determine the plan for a specific family. To follow the plan, families may choose from the food groups, in amounts as specified in the plan, those foods that they can store properly and prepare, that they enjoy eating, and that they can afford. Foods within the groups are generally similar to each other in nutritive value. Thus, as long as families choose a variety of foods, choices within groups will not alter the nutritional quality of the diet.

Most families will find the cost of one of the four food plans similar to the amount they spend for food. In USDA's Nationwide Food Consumption Survey 1977-78 (NFCS), about 12 percent of the households had food costs below the cost for the 1974-75 thrifty food plan; 30 percent had food costs above the cost for the liberal food plan (4). The revised food plans cost about the same as the 1974-75 food plans.

Why Were the Food Plans Revised?

The previous food plans were developed in 1974-75. Food consumption and food price data from a 1965-66 nationwide survey were used in their development. Dietary standards used were from the Recommended Dietary Allowances (RDA) released in 1974 by the National Academy of Sciences, National Research Council.

The 1974-75 food plans were revised to take into account new information on food consumption, food prices, food composition, and nutritional needs. The NFCS provided new food consumption and food price data. The Human Nutrition Information Service's (HNIS) Nutrient Data Bank contained updated and expanded food composition data. In 1980, the RDA were revised, and these RDA were used to define lower limits for food energy and nutrients in the 1983 food plans. Several dietary substances were added to those considered in developing the earlier plans partly because new food composition data were available. They are zinc, phosphorus, folacin, vitamin E, cholesterol, caloric sweeteners, and sodium.

¹Costs for the food plans shown on pp. 28-32 of this issue are for the 1974-75 food plans. The computer program used to estimate costs of foods in the 1983 plans had not been completed when Family Economics Review went to press.

²BLS urban family and retired couple budgets have been discontinued. See Family Economics Review 1982(4):32 and 1983(1):31.

Table 1. Low-cost food plan, 1983: Quantities of food for a week¹

Food group	Child				Male				Female ²		
	1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more
	Pounds ³										
Vegetables, fruit:											
Potatoes (fresh weight)	0.50	0.73	1.16	1.28	1.55	1.88	1.97	1.71	1.19	1.19	1.11
High-nutrient vegetables .....	.55	.50	.86	.98	1.30	1.34	1.91	2.00	1.19	1.86	2.17
Other vegetables .....	.82	.88	1.20	1.41	1.41	1.54	2.12	2.19	1.54	2.30	2.04
Mixtures, mostly vegetable; condiments .....	.06	.10	.14	.17	.18	.20	.29	.30	.15	.24	.15
Vitamin-C-rich fruit ⁴	1.51	1.43	1.79	1.94	2.03	2.16	1.62	1.75	1.76	1.79	1.91
Other fruit ⁴	1.97	1.58	2.30	2.44	2.07	1.45	1.98	2.21	1.81	1.53	2.19
Grain products:											
Whole-grain/high-fiber breakfast cereals	⁵ .35	.27	.31	.35	.36	.28	.14	.22	.33	.21	.31
Other breakfast cereals	⁵ .38	.26	.33	.38	.39	.31	.16	.25	.36	.23	.22
Whole-grain/high-fiber flour, meal, rice, pasta .....	.11	.07	.08	.09	.10	.10	.11	.10	.09	.09	.12
Other flour, meal, rice, pasta ..	.86	.83	1.04	1.17	1.32	1.34	1.40	1.34	.95	1.01	.83
Whole-grain/high-fiber bread ...	.12	.17	.22	.26	.31	.39	.42	.30	.28	.30	.25
Other bread .....	.41	.79	1.08	1.28	1.52	1.95	2.08	1.45	1.19	1.24	.84
Bakery products, not bread ....	.09	.36	.62	.75	.96	.85	.86	.71	.44	.46	.19
Grain mixtures .....	.15	.20	.18	.30	.33	.34	.29	.13	.23	.22	.14
Milk, cheese, cream:											
Milk, yogurt (quarts) ⁶	3.41	3.23	4.26	4.69	5.02	4.86	2.49	2.07	4.64	1.85	2.16
Cheese .....	.17	.17	.20	.19	.22	.30	.36	.28	.34	.34	.35
Cream, mixtures mostly milk ....	.13	.44	.57	.69	.67	.75	.51	.50	.65	.34	.55
Meat and alternates:											
Lower-cost red meats, variety meats .....	.71	.52	.60	.74	.99	1.23	1.65	1.23	1.13	1.57	1.67
Higher-cost red meats, variety meats .....	.37	.38	.47	.57	.79	.94	.86	1.04	.70	.95	1.21
Poultry .....	.42	.43	.63	.67	.85	.77	.94	.98	.83	.91	.95
Fish, shellfish .....	.09	.07	.14	.11	.16	.14	.25	.23	.17	.21	.19
Bacon, sausage, luncheon meats	.15	.39	.48	.51	.58	.57	.34	.58	.29	.41	.21
Eggs (number)	3.34	3.24	2.50	2.99	3.02	2.97	3.38	3.93	3.82	4.23	4.02
Dry beans, peas, lentils (dry weight) ⁷ .....	.22	.09	.12	.15	.20	.19	.27	.19	.24	.34	.14
Mixtures, mostly meat, poultry, fish, egg, legume .....	.08	.08	.11	.15	.19	.20	.22	.15	.16	.17	.16
Nuts (shelled weight), peanut butter .....	.09	.20	.20	.22	.20	.22	.14	.08	.11	.07	.04
Other foods: ⁸											
Fats, oils .....	.09	.27	.43	.50	.55	.54	.68	.54	.25	.32	.26
Sugar, sweets .....	.15	.46	.57	.62	.74	.77	.84	.83	.43	.35	.43
Soft drinks, punches, ades (single-strength)	1.53	1.96	2.72	3.25	3.35	4.63	3.67	1.19	3.96	3.33	.96

¹Quantities are for food as purchased or brought into the household from garden or farm. Food is for preparation of all meals and snacks for a week. About 10 percent of the edible parts of food above quantities needed to meet caloric needs is included to allow for food assumed to be discarded as plate waste, spoilage, etc.

²Pregnant and lactating females usually require added nutrients and should consult a doctor for recommendations about diet and supplements.

³Quantities in pounds, except milk which is in quarts, and eggs which are by number.

⁴Frozen concentrated juices are included as single-strength juice.

⁵Cereal fortified with iron is recommended.

⁶Quantities of dry and evaporated milk and yogurt included as their fluid whole milk equivalents in terms of calcium content.

⁷Count 1 pound of canned dry beans--pork and beans, kidney beans, etc.--as 0.33 pound.

⁸2 small food groups--coffee and tea, and seasonings--are not shown. Their cost is a part of the estimated cost for the food plan.

Table 2. Moderate-cost food plan, 1983: Quantities of food for a week¹

Food group	Child				Male				Female ²		
	1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more
Pounds ³											
Vegetables, fruit:											
Potatoes (fresh weight)	0.68	0.81	1.34	1.90	1.69	2.17	2.11	1.81	1.31	1.31	1.03
High-nutrient vegetables .....	.78	1.00	.88	1.48	1.33	1.55	2.22	2.17	1.56	2.51	2.76
Other vegetables	1.06	.81	1.38	1.82	1.65	2.11	2.51	2.76	1.86	2.71	2.52
Mixtures, mostly vegetable; condiments .....	.10	.12	.17	.22	.21	.26	.32	.34	.20	.29	.23
Vitamin-C-rich fruit ⁴	1.60	1.92	2.61	2.47	2.10	2.32	2.26	2.15	1.96	2.22	2.51
Other fruit ⁴	1.98	2.19	2.32	2.44	2.88	2.42	1.99	3.12	1.81	1.91	2.78
Grain products:											
Whole-grain/high-fiber breakfast cereals	⁵ .53	.24	.35	.42	.42	.38	.19	.22	.41	.23	.23
Other breakfast cereals	⁵ .43	.26	.38	.47	.46	.43	.21	.25	.42	.24	.17
Whole-grain/high-fiber flour, meal, rice, pasta .....	.07	.06	.07	.07	.09	.08	.11	.10	.06	.08	.11
Other flour, meal, rice, pasta ..	.81	.81	.87	.86	1.19	1.03	1.53	1.38	.86	1.10	.85
Whole-grain/high-fiber bread ...	.11	.19	.25	.31	.34	.50	.46	.34	.30	.32	.26
Other bread .....	.41	.82	1.07	1.34	1.52	2.18	2.02	1.48	1.24	1.27	.87
Bakery products, not bread ....	.21	.53	.76	.65	.78	.86	.93	.80	.59	.53	.31
Grain mixtures .....	.14	.18	.26	.46	.43	.46	.30	.15	.32	.25	.18
Milk, cheese, cream:											
Milk, yogurt (quarts) ⁶	3.79	3.58	4.72	5.16	6.07	5.38	2.62	1.93	5.09	1.89	2.24
Cheese .....	.18	.18	.29	.21	.26	.46	.39	.40	.38	.44	.40
Cream, mixtures mostly milk ....	.28	.34	.71	.99	1.08	.75	.59	.61	.70	.25	.58
Meat and alternates:											
Lower-cost red meats, variety meats .....	.51	.60	.85	1.11	1.36	1.19	1.48	1.37	1.12	1.60	1.58
Higher-cost red meats, variety meats .....	.46	.64	.90	1.17	1.43	1.35	1.60	1.46	1.04	1.35	1.50
Poultry .....	.57	.59	.82	1.00	1.15	.74	1.12	1.03	.94	1.06	1.03
Fish, shellfish .....	.10	.16	.22	.29	.40	.36	.41	.51	.41	.41	.56
Bacon, sausage, luncheon meats	.26	.42	.59	.50	.26	.72	.50	.43	.32	.24	.22
Eggs (number)	3.64	3.40	2.52	3.08	2.42	2.73	3.10	3.83	3.23	4.37	4.12
Dry beans, peas, lentils (dry weight) ⁷ .....	.10	.07	.16	.21	.20	.18	.23	.20	.24	.35	.19
Mixtures, mostly meat, poultry, fish, egg, legume .....	.08	.10	.14	.16	.17	.23	.29	.19	.17	.19	.17
Nuts (shelled weight), peanut butter .....	.05	.13	.18	.15	.28	.13	.16	.04	.06	.03	.02
Other foods: ⁸											
Fats, oils .....	.11	.30	.31	.46	.52	.57	.65	.62	.28	.36	.29
Sugar, sweets .....	.17	.49	.60	.68	.79	.84	.92	.91	.42	.47	.44
Soft drinks, punches, ades (single-strength)	1.57	2.37	2.86	3.69	3.90	4.84	3.73	1.06	4.26	3.71	1.18

¹ Quantities are for food as purchased or brought into the household from garden or farm. Food is for preparation of all meals and snacks for a week. About 20 percent of the edible parts of food above quantities needed to meet caloric needs is included to allow for food assumed to be discarded as plate waste, spoilage, etc.

² Pregnant and lactating females usually require added nutrients and should consult a doctor for recommendations about diet and supplements.

³ Quantities in pounds, except milk which is in quarts, and eggs which are by number.

⁴ Frozen concentrated juices are included as single-strength juice.

⁵ Cereal fortified with iron is recommended.

⁶ Quantities of dry and evaporated milk and yogurt included as their fluid whole milk equivalents in terms of calcium content.

⁷ Count 1 pound of canned dry beans--pork and beans, kidney beans, etc.--as 0.33 pound.

⁸ 2 small food groups--coffee and tea, and seasonings--are not shown. Their cost is a part of the estimated cost for the food plan.

Table 3. Liberal food plan, 1983: Quantities of food for a week¹

Food group	Child				Male				Female ²		
	1-2 years	3-5 years	6-8 years	9-11 years	12-14 years	15-19 years	20-50 years	51 years or more	12-19 years	20-50 years	51 years or more
	Pounds ³										
Vegetables, fruit:											
Potatoes (fresh weight)	0.70	0.78	1.13	1.48	1.57	2.44	2.06	1.74	1.20	1.18	1.10
High-nutrient vegetables .....	.78	.81	1.24	1.22	1.57	1.78	2.79	2.77	1.89	3.90	2.81
Other vegetables	1.03	.87	1.47	1.61	2.08	2.04	3.02	3.14	2.00	3.72	2.89
Mixtures, mostly vegetable; condiments .....	.10	.11	.18	.19	.24	.29	.49	.36	.19	.34	.28
Vitamin-C-rich fruit ⁴	1.65	2.28	2.32	3.26	2.79	3.08	2.72	2.50	2.21	2.47	2.63
Other fruit ⁴	3.24	2.47	2.68	3.38	2.54	2.29	2.44	3.02	2.09	2.15	3.13
Grain products:											
Whole-grain/high-fiber breakfast cereals	⁵ .53	.25	.32	.37	.51	.48	.27	.19	.45	.20	.24
Other breakfast cereals	⁵ .54	.26	.34	.40	.56	.52	.30	.21	.46	.20	.17
Whole-grain/high-fiber flour, meal, rice, pasta .....	.05	.06	.09	.09	.08	.10	.11	.11	.07	.09	.09
Other flour, meal, rice, pasta ..	.85	.89	1.26	1.35	1.20	1.40	1.48	1.54	.93	1.22	.81
Whole-grain/high-fiber bread ...	.13	.20	.25	.33	.45	.52	.60	.43	.34	.21	.28
Other bread .....	.45	.76	.94	1.26	1.71	1.94	2.22	1.61	1.24	1.38	.86
Bakery products, not bread ....	.29	.62	.81	.64	.95	.98	.91	.97	.55	.56	.41
Grain mixtures .....	.23	.29	.34	.38	.46	.43	.35	.18	.42	.31	.15
Milk, cheese, cream:											
Milk, yogurt (quarts) ⁶	4.14	3.64	5.05	5.13	6.12	5.30	2.46	1.87	5.44	2.05	2.42
Cheese .....	.23	.24	.41	.38	.34	.50	.45	.41	.43	.45	.45
Cream, mixtures mostly milk ....	.17	.57	.61	.77	.69	.33	.19	.68	.96	.15	.76
Meat and alternates:											
Lower-cost red meats, variety meats .....	.60	.54	.98	1.07	1.21	1.23	1.46	1.35	1.15	1.95	1.36
Higher-cost red meats, variety meats .....	.61	.73	1.13	1.44	1.66	1.65	2.00	1.80	1.42	1.64	1.69
Poultry .....	.38	.79	.89	1.18	1.06	1.05	1.17	1.20	.89	1.28	1.31
Fish, shellfish .....	.22	.26	.27	.36	.38	.34	.74	.77	.66	.91	.89
Bacon, sausage, luncheon meats	.18	.53	.51	.62	.68	.70	.36	.43	.27	.19	.22
Eggs (number)	3.51	2.72	2.48	3.73	2.87	3.11	3.55	3.84	3.86	3.90	4.27
Dry beans, peas, lentils (dry weight) ⁷ .....	.07	.13	.14	.20	.26	.17	.30	.20	.26	.27	.16
Mixtures, mostly meat, poultry, fish, egg, legume .....	.10	.13	.15	.19	.31	.26	.19	.21	.24	.28	.19
Nuts (shelled weight), peanut butter .....	.03	.20	.26	.22	.21	.26	.21	.04	.03	.01	.06
Other foods: ⁸											
Fats, oils .....	.10	.25	.34	.48	.56	.65	.82	.68	.34	.43	.30
Sugar, sweets .....	.20	.47	.71	.84	.89	.94	1.06	1.01	.43	.48	.67
Soft drinks, punches, ades (single-strength)	1.65	3.20	3.14	4.10	4.84	5.95	4.46	1.46	5.07	3.83	1.28

¹Quantities are for food as purchased or brought into the household from garden or farm. Food is for preparation of all meals and snacks for a week. About 30 percent of the edible parts of food above quantities needed to meet caloric needs is included to allow for food assumed to be discarded as plate waste, spoilage, etc.

²Pregnant and lactating females usually require added nutrients and should consult a doctor for recommendations about diet and supplements.

³Quantities in pounds, except milk which is in quarts, and eggs which are by number.

⁴Frozen concentrated juices are included as single-strength juice.

⁵Cereal fortified with iron is recommended.

⁶Quantities of dry and evaporated milk and yogurt included as their fluid whole milk equivalents in terms of calcium content.

⁷Count 1 pound of canned dry beans--pork and beans, kidney beans, etc.--as 0.33 pound.

⁸2 small food groups--coffee and tea, and seasonings-- are not shown. Their cost is a part of the estimated cost for the food plan.

The 1983 food plans are presented in a slightly different format from that used in 1974-75. The number of food groups³ was increased from 17 in the 1974-75 food plans to 31 in the 1983 food plans. Additional food groups were needed to group foods with high and low content of certain dietary substances not considered in the earlier plans and to help deal with the increased use of commercially prepared foods. In addition, the sex-age categories for which food plans were developed were reduced from 14 to 11. Plans meeting the dietary standards could not be developed for pregnant and lactating women using the food plan model (described in the following section). Plans for children under 1 year of age differed excessively from usual consumption partly because average nutritive values and prices used in developing the plans may not be appropriate for this age group whose eating patterns are quite different from those of other groups. Thus, food plans for pregnant and lactating women and children under a year old were discontinued. Also, the categories for older women and men were changed from 55 years and over to 51 years and over to conform to categories for which RDA are presented.

Data and Procedures Used in Revising the Food Plans

Data from the basic sample of the NFCS, which was conducted from April 1977 through March 1978, were used as the basis for food consumption patterns and base food prices. Data included quantities and prices of foods as purchased and used by the survey households in a week and quantities of foods eaten by individual members of each household for 3 days.

Data were collected from over 14,000 households. From these households, three

³The food groups, the foods in each group, and other details related to food plan development are available on request from the Human Nutrition Information Service, Consumer Nutrition Division, Federal Building, 6505 Belcrest Road, Hyattsville, Md. 20782.

separate samples were selected as a basis for the low-cost, moderate-cost, and liberal food plans. Data used were from households with increasingly higher food costs per person--approximately the second, third, and fourth quartiles, respectively, on a distribution of households by money value of their food per person.

The food plans were developed by starting with usual food consumption patterns calculated from survey data. This approach was used because researchers believe that a nutritious diet that disrupts usual eating habits the least is most likely to be acceptable to families. These food consumption patterns are estimated quantities as purchased of foods (classified into 31 food groups) that survey households used to prepare a week's meals and snacks for people in given sex-age categories. Each food group has an average nutritive value and price associated with it, based on selections within groups typical of those made by survey households. A computerized mathematical model (1) was used to find the combination of food groups at a given total cost that met dietary standards for each sex-age category with the least change from quantities in food groups in the consumption pattern. This combination of food groups is the food plan for the sex-age category.

Dietary standards for the 1983 plans, based on the 1980 RDA (3), were set after extensive study of the dietary change needed in food consumption patterns to meet various sets of standards (2, 5, 6). These standards and the rationale for their use are described in the March 1983 issue of the Journal of Nutrition Education (2). Briefly they are:

- RDA for food energy, protein, six vitamins (A, B₁₂, thiamin, riboflavin, niacin, and C), and three minerals (calcium, magnesium, and phosphorus).

- RDA for iron, except 90 percent of the RDA for the child 1 to 2 years old.

- Eighty percent of RDA for zinc, folacin, and vitamin E. Levels below RDA were used in recognition of the limited food composition data for all three of these nutrients. Another consideration was that the U.S. food supply does not provide enough zinc and folacin to meet RDA for the population.

. 0.02 milligrams of vitamin B₆ per gram of protein in the food plan. The Food and Nutrition Board based RDA for vitamin B₆ on this ratio.

. Moderate levels of fat (35 percent of energy), cholesterol (350 mg per day), caloric sweeteners (12 percent of energy), and sodium (1,600 mg per 1,000 calories).

None of the food consumption patterns for the three food plans met all of the dietary standards (table 4). Nutritional shortcomings were fairly consistent for all three plans. They occurred despite the fact that,

Table 4. Nutritional shortcomings in food consumption patterns¹ used as a basis for 1983 food plans

Nutrient	Sex-age category with pattern not meeting dietary standard
Below standard:	
Calcium, zinc....	Children, 1-2 years; females, 12 years and over
Iron.....	Children, 1-5 years; females, 12-50 years
Magnesium.....	Males, 15-19 years; females, 12-50 years
Folacin.....	Females, 12 years and over
Above standard:	
Fat.....	Most
Sweeteners.....	All
Sodium.....	All
Cholesterol.....	Primarily males, 15 years and over

¹Estimated quantities as purchased of foods in 31 food groups used to prepare all meals and snacks for a week. Developed using data from USDA's Nationwide Food Consumption Survey 1977-78.

in deriving the consumption patterns, quantities of food in food groups were proportionately adjusted to make the patterns provide enough food to meet the midpoint of the RDA range for energy. Calcium, zinc, iron, magnesium, and folacin were the problem nutrients. Young children, teenage girls, and women had the greatest shortages. Levels of fat, sweeteners, and sodium in consumption patterns for almost all categories exceeded the specified standards, and patterns of males 15 years and over also exceeded the cholesterol standard. Therefore, in developing the food plans, adjustment to the patterns was required for all sex-age categories.

In each food plan, there is an allowance for some discard of edible food during preparation, as plate waste, or because of spoilage. Food specified in the 1983 food plans is sufficient to provide the dietary standard for calories and nutrients for each sex-age category and to allow for some food discard. The limited information available on household discard of food indicates that those with higher per capita food costs have higher discard; the assumed discard allowances were set accordingly.

The 1983 Low-Cost, Moderate-Cost, and Liberal Food Plans

The low-cost, moderate-cost, and liberal food plans are shown in tables 1 to 3 in terms of quantities as purchased of food in 31 food groups. To compare food plans by cost level, and to compare food plans with consumption patterns, food quantities as purchased for a week were translated into food quantities as served for a day. These "as served" quantities are easier to compare across food plans because the amount of food assumed as discard is excluded. Consumption patterns and food plans for three cost levels in terms of food as served for a four-person household (man and woman 20 to 50 years, and children 6 to 8 and 9 to 11 years) are shown in table 5.

As the cost of the plan increases, quantities of vegetables and fruit and foods in the meat, poultry, and fish groups generally increase; and quantities of grain products;

dry beans, peas, and nuts; and eggs generally decrease. The low-cost plan relies more heavily than the other food plans on the food groups that are the most economical sources of nutrients. In addition, users of the low-cost plan are expected to select more often the lower cost foods within food groups--for example, ground beef rather than steak. Conversely, more expensive choices within food groups account for much of the greater cost of the liberal plan. Differences between plans reflect differences in both consumption patterns and cost limits for the plans.

Compared with the food consumption patterns on which they are based, food plans for the four-person household contain more grain products and dry beans, peas, and

nuts, and less soft drinks, punches, and ades; sugar and sweets; fats and oils; cheese; eggs; and meat, poultry, and fish. Such shifts were required to provide food plans that meet the dietary standards. Because calcium, zinc, iron, magnesium, and folacin were the nutrients most often short in consumption patterns, adjustments to patterns generally increased quantities in food groups providing these nutrients, especially those with low to moderate levels of fat, cholesterol, caloric sweeteners, and sodium.

The changes needed in food consumption patterns to provide nutritious diets varied by sex-age category. For example, nutrient shortages of men 51 years and over were not as great as those of women 51 years and

Table 5. *A day's food as served for a 4-person household:*¹ *Food consumption patterns and 1983 food plans*

Food ²	Unit	Low-cost		Moderate-cost		Liberal	
		Pattern	Plan	Pattern	Plan	Pattern	Plan
		- - - - -	<u>Number of units per day</u>				- - - - -
Vegetables, fruit	1/2 cup	18.1	18.3	18.3	19.9	18.6	21.1
Grain products	1 oz ³	25.1	38.7	25.3	36.7	24.6	35.2
Milk, yogurt	1 cup	6.5	6.5	6.4	6.5	6.0	6.1
Cheese (per week)	1 oz	20.5	15.8	20.7	17.8	25.5	20.9
Meat, poultry, fish, boned ⁴	1 oz	19.1	15.5	19.9	18.6	20.4	19.4
Eggs (per week)	no.	14.7	11.9	13.4	10.9	13.9	10.5
Dry beans, peas, cooked; nuts	1/2 cup	0.9	1.5	0.9	1.4	0.8	1.3
Fats, oils	1 tbsp	10.1	7.6	10.2	6.4	10.3	6.9
Sugar, sweets	1 tbsp	16.8	9.6	15.4	10.8	15.4	12.3
Soft drinks, punches, ades	1 cup	6.3	3.2	6.1	3.0	6.4	3.1

¹Man and woman 20-50 years, children 6-8 and 9-11 years.

²Excludes commercially prepared mixtures except bread and bakery products.

³1 oz (dry) of cereal, pasta, or rice (about 1 serving), 1 slice of bread or equivalent in other bakery products. Bread is commercially prepared bread and bread assumed to be made at home from flour and meal and some milk, fat, and sugar. Milk, fat, and sugar in excess of amount required to make bread are included in their respective groups.

⁴Lean parts of meat and poultry. Includes some bacon, sausage, and luncheon meats.

over. Changes from the man's consumption pattern reflect the need to moderate fat in his diet, primarily through increased use of grain products and legumes and decreased use of fats and oils, meat, eggs, and cheese. The woman's pattern had to be changed in different ways to increase nutrient levels as well as reduce fat levels. Like the man, she had to increase her use of grain products; unlike the man, she had to increase markedly her use of milk, red meats, and poultry, and decrease substantially her use of fats and sweets.

Differences Between the 1983 and 1974-75 Food Plans

Weekly quantities as purchased of items from selected food groups from the 1974-75 and the 1983 plans for a four-person household (man and woman 20 to 50 years old and children 6 to 8 and 9 to 11 years) are shown in table 6. Compared with the 1974-75 food plans, the 1983 plans for the four-person household contain more cereal, flour, rice, and pasta; bread; dry beans, peas, and nuts; meat, poultry, and fish; and vegetables and fruit. The 1983 plans also contain less fats

Table 6. Quantities of food for a week¹ for a 4-person household:² Food plans, 1974-75 and 1983

Food ³	Low-cost plan		Moderate-cost plan		Liberal plan	
	1974-75	1983	1974-75	1983	1974-75	1983
	Pounds ⁴					
Vegetables, fruit ⁵	33.3	34.5	39.2	41.4	45.3	47.4
Cereal, flour, rice, pasta	6.3	7.1	5.2	7.2	5.3	8.1
Bread	6.3	6.9	5.9	7.0	5.6	7.2
Other bakery products	4.4	3.7	5.4	4.1	6.0	4.3
Milk, cheese, other dairy						
(milk equivalent in quarts) ⁶	16.0	17.5	19.2	19.5	20.7	20.4
Meat, poultry, fish	12.4	13.7	15.8	18.0	18.9	21.0
Eggs (number)	14.8	13.1	15.3	13.1	15.4	13.7
Dry beans, peas, lentils, nuts						
(dry/shelled weight) ⁷	1.4	1.5	1.2	1.5	1.3	1.6
Fats, oils	2.6	1.9	2.8	1.8	2.9	2.1
Sugar, sweets	3.6	2.4	4.1	2.7	4.3	3.1

¹Quantities are for food as purchased or brought into the household from garden or farm. Food is for preparation of all meals and snacks for a week. Food quantities are increased by 10, 20, and 30 percent above the amount required to meet dietary standards for low-cost, moderate-cost, and liberal plans, respectively, to allow for nutrients lost as discarded edible food.

²Man and woman 20-50 years, children 6-8 and 9-11 years.

³Small quantities of coffee, tea, seasonings, soft drinks, punches, and ades that are a part of the food plans are not shown.

⁴Quantities in pounds except milk which is in quarts, and eggs which are by number.

⁵Frozen concentrated fruit juices are included as single-strength juice.

⁶Quantities of dry and evaporated milk and yogurt included as their fluid whole milk equivalents in terms of calcium content.

⁷Count 1 pound of canned dry beans--pork and beans, kidney beans, etc.--as 0.33 pound.

and oils, sugar and sweets, commercially prepared bakery products and grain mixtures other than bread, and eggs. Some of these differences reflect changes in consumption patterns between the 1965-66 and 1977-78 surveys. Some reflect changes in existing, and additions of new, dietary standards for the food plans.

Procedures Used to Estimate Costs

To estimate the cost of foods in the plans, an assumption is made that families following the plans select the kinds and amounts of foods in each of the food groups that survey households at the three food cost levels selected on the average.⁴ For example, the percentage of total meat used by the selected survey families that was ground beef, beef chuck, stewing beef, and so forth, is assumed in the plan. These average selections are believed to provide the most reliable basis for food guides to be used nationwide.

The average prices paid for almost 2,400 different foods are used as a basis for estimating the costs. These prices reflect differences in container sizes, brands, quality of food, and price levels of stores selected by families who use food at different levels of cost.

Costs of foods in the food plans are estimated each month by use of the following procedures:

1. Prices paid by survey households are updated by use of the percentage change in price indexes of detailed food expenditure categories from the time of the survey to the month of the estimate. Indexes for these food expenditure categories are based on prices collected each month by BLS from a representative sample of stores in selected cities across the country. For example, survey households used as a basis for the moderate-cost food plan paid an average price of \$1.04 a pound for ground beef in

1977-78, and the index for the food expenditure category containing ground beef reported by BLS in November 1982 is 64 percent higher than the index reported in 1977-78. A price of \$1.71 (\$1.04 plus 64 percent of \$1.04), then, is used for ground beef in estimating the cost of the moderate-cost food plan for November 1982.

2. The updated prices for foods in each food group for each food plan are weighted by the average amounts of foods used by the survey households to derive prices per unit --pound, quart, or number--for the food groups.

3. The prices per unit are then multiplied by the number of the units of food groups in the plan for each sex-age category (tables 1 to 3) to determine the cost of foods from each food group.

4. Costs for the food groups for each category are totaled. These totals, rounded to the nearest 10 cents, are released as the cost of food at home for a week. Unrounded weekly costs are multiplied by 4.333, then rounded to the nearest 10 cents, to estimate the cost for the month.⁵

The general cost level for each of the 1983 food plans is about the same as for the comparable 1974-75 food plan. However, 1983 food plans for some sex-age categories cost more and others cost less than earlier plans. Costs for the new plans for women 51 years and over are substantially higher. The new plans for children 1 to 8 years old, women 20 to 50 years, and men 51 years and over are also more costly. Conversely, new plans for children 9 to 11 years, girls 12 to 19 years, boys 15 to 19 years, and men 20 to 50 years are less costly (1). These changes in food cost relationships result from changes in food consumption patterns and the costs associated with changing patterns to meet the dietary standards for the various sex-age categories.

Food Plan Development--An Ongoing Project

The maintenance of the USDA food plans--development, interpretation through publications for leaders and consumers, and periodic estimates of costs--is an ongoing project in the HNIS. The food plans are

⁴A list of the most commonly used foods in the plans for a family of four is available on request from the Human Nutrition Information Service, Consumer Nutrition Division, Federal Building, 6505 Belcrest Road, Hyattsville, Md. 20782.

⁵See footnote 1 on p. 12.

evaluated, and revised as required, when new information becomes available on food consumption, food prices, food composition, and nutritional requirements.

The 1983 food plans reflect the most recent, complete, and reliable information available; however, such information has limitations. For example, current food consumption may differ from that reported in 1977-78, nutrient composition is not known for some nutrients in some foods, and dietary standards must be derived from research results that are not always sufficient and consistent.

An underlying premise in developing the food plans is that families might be encouraged to change the amounts of food groups they use to achieve a nutritious diet. The public, however, may have neither sufficient skills nor the desire to do so.

Each food plan is only one of many combinations of food groups that could be developed at the given cost level. Amounts in food groups in the food consumption patterns could be changed in other ways to provide nutritious diets. While such other combinations would deviate further from consumption patterns, they might be acceptable to some families.

Other food plans at similar costs could be developed if selections of food groups were not assumed to be typical of the selections of survey households. If the foods within the groups were limited to those that are especially inexpensive or especially nutrient dense, the quantities in food groups in the food plans probably would not be required to deviate from food consumption to the extent the 1983 food plans do. For example, if only nonfat dry and fluid skim milk were used, the extra calories and cost of the typical assortment of milk assumed in the 1983 food plans could be used for other foods in the food plan. For purposes of establishing food plans at different costs for use nationwide and estimating the nutrient content and cost of foods in the food plans, foods within food groups used, on the average, by households with different levels of food cost are believed to be most reasonable.

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Nutrient Content of the U.S. Food Supply, 1909-81

The winter 1983 issue of the National Food Review (NFR-21) includes an article that analyzes trends in nutrient levels from the period 1909-13 to 1981. "Nutrient Content of the National Food Supply, 1981," was written by Ruth Marston and Susan Welsh, both home economists with Human Nutrition Information Service of the U.S. Department of Agriculture.

A comparison of nutrient levels of the national food supply for 1980 and 1981 shows that levels for food energy and nine nutrients were unchanged. Of the nutrients that

changed, niacin, vitamin A, and vitamin B₁₂ increased by 1 to 3 percent, and thiamin and ascorbic acid decreased by 1 to 2 percent.

Changes in nutrient levels tended to be greater over a longer period of time. Between 1967-69 and 1981, increases of 1 to 12 percent occurred in levels of food energy, fat, carbohydrate, iron, vitamin A, thiamin, niacin, vitamin B₆, and ascorbic acid. During the same period, decreases of 3 to 6 percent occurred in levels of vitamin B₁₂, magnesium, phosphorus, and calcium, while levels of protein and riboflavin did not change.

In addition, the article reports a more detailed review of trends in the fat content of the U.S. food supply. Between 1909-13 and 1981, the daily per capita level of fat rose 31 percent, reaching a peak of 163 grams in 1981. The greater use of vegetable fats, particularly salad and cooking oils and shortening, accounted for the increase. Nevertheless, animal fats continued to account for the largest proportion of total fat. Throughout the century, three food groups--fats and oils; meat, poultry, and fish; and dairy products--provided approximately 90 percent of the total fat, although marked changes occurred in the sources of fat within each group.

Measuring the Effect of In-Kind Transfers on Poverty

The current definition of poverty used for statistical purposes is based on money income and does not include the value of in-kind (noncash) transfers as income. This policy has evoked much criticism since the market value of food stamps, school lunches, publicly owned or subsidized rental housing, medicare and medicaid grew from \$2.2 billion to over \$72.5 billion from 1965 to 1980. In the first of several U.S. Bureau of the Census reports to explore these issues, several alternative methodologies for valuing public in-kind transfers were examined

to determine their effect on the size and composition of the official poverty population.

Three income concepts were developed that would do the following: Incorporate only food and housing noncash benefits; add medical care, excluding institutional care benefits; and include food, housing, and medical care with institutional care. Medical transfers constitute over 80 percent of the total market value of in-kind benefits.

Three valuation techniques were analyzed: Market value, or purchase price in the private market; recipient or cash equivalent value, which reflects the recipient's own valuation of the benefit in cash; and the poverty budget share value, which limits the value of in-kind transfers to the proportions spent on these items by persons at or near the poverty line in 1960-61, when such transfers were minimal.

The choice of income concept and valuation technique produces a wide range of estimates when the value of in-kind benefits is included in the determination of poverty according to the current poverty definition. The reduction in the estimated number of poor ranges from 42 percent to a low of about 12 percent (see table). However, the inclusion of the value of in-kind benefits in the measure of poverty does not eliminate poverty altogether.

The effect of the value of medical benefits is particularly strong on the elderly. Their official poverty rate was 14.7 percent in 1979. Food, housing, and medical benefits (including institutional care) reduce the poverty rate for the elderly to 4.5 percent.

Source: Smeeding, Timothy M., 1982, Alternative methods for valuing selected in-kind transfer benefits and measuring their effect on poverty, Technical Paper 50, U.S. Department of Commerce, Bureau of the Census.

Number of poor and poverty rates by alternative income concepts and valuation techniques, all persons, 1979

[Numbers in thousands]

Income concept	Valuation technique		
	Market value approach	Recipient of each equivalent value approach	Poverty budget share value approach
Money income alone:			
Number of poor	23,623	23,623	23,623
Poverty rate	11.1	11.1	11.1
Money income plus food and housing (in-kind transfers):			
Number of poor	19,933	20,218	20,743
Poverty rate	9.4	9.5	9.8
Percent reduction ¹	-15.6	-14.4	-12.2
Money income plus food, housing, and medical care (excluding institutional care expenditures); (in-kind transfers):			
Number of poor	14,023	18,393	18,866
Poverty rate	6.6	8.7	8.9
Percent reduction ¹	-40.6	22.1	-20.1
Money income plus food, housing, and medical care (including institutional care expenditures); (in-kind transfers):			
Number of poor	3,634	17,318	18,866
Poverty rate	6.4	8.2	8.9
Percent reduction ¹	-42.3	-26.7	-20.1

¹Percent reduction in the number of poor from the current poverty estimate based on money income alone.

Source: Smeeding, Timothy M., 1982, Alternative methods for valuing selected in-kind transfer benefits and measuring their effect on poverty, Technical Paper 50, U.S. Department of Commerce, Bureau of the Census.

Out-of-Pocket Expenditures for Personal Health Services

Out-of-pocket expenses for personal health services were incurred by 75 percent of the U.S. population in 1977. Health services were not required by 15 percent, and the remaining 10 percent had no out-of-pocket expense for health services they received. The mean expenditure was \$205 for persons who had any expense.

About two-thirds of the U.S. population in 1977 spent less than \$100 out-of-pocket for health services. Less than one-tenth of all individuals spent over \$500. Families were more likely than individuals to have health expenses over \$500; one-fourth of U.S. families reported spending over \$500 for unreimbursed health care services.

A majority of U.S. families (68 percent) spent less than 3 percent of their income for personal health services, not including health insurance premiums. Ten percent of all families spent more than 10 percent of family income, and 4 percent had health expenses exceeding 20 percent of family income.

Expense per person varied by characteristics of the population, such as age, sex, education, and labor force participation. Relatively high out-of-pocket expenses were incurred by the older age groups, females, families at the highest education levels, and those not in the labor force (many of whom are retired elderly). Out-of-pocket health expenses increased with age from \$97 per child under 6 years to \$326 per person 65 years and older. Females incurred an average expense of \$230 compared with \$175 for males, a 24 percent difference. Those in families with annual income below \$12,000 spent, on the average, more than families in higher income brackets (\$241 and \$190, respectively).

Source: Rossiter, Louis F., and Gail R. Wilensky, 1982, Out-of-pocket expenditures for personal health services, NCHSR National Health Care Expenditures Study, Data Preview 13, U.S. Department of Health and Human Services, National Center for Health Services Research.

Some New USDA Publications

The following are for sale from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

- 1982 HANDBOOK OF AGRICULTURAL CHARTS. November 1982. Stock No. 001-000-04305-6. \$5.50.
- 1982 YEARBOOK OF AGRICULTURE: FOOD FROM FARM TO TABLE. October 1982. Stock No. 001-000-04298-0. \$12.
- COMPOSITION OF FOODS: BREAKFAST CEREALS. Revised July 1982. Stock No. 001-000-04283-1. \$7.
- COMPOSITION OF FOODS: FRUITS AND FRUIT JUICES. Revised August 1982. Stock No. 001-000-04287-4. \$9.
- FOOD CONSUMPTION: HOUSEHOLDS IN THE UNITED STATES, SPRING 1977, NATIONWIDE FOOD CONSUMPTION SURVEY 1977-78. September 1982. Stock No. 001-000-04293-9. \$8.50.
- FOOD CONSUMPTION: HOUSEHOLDS IN THE NORTHEAST, SPRING 1977, NATIONWIDE FOOD CONSUMPTION SURVEY 1977-78. September 1982. Stock No. 001-000-04294-7. \$8.50.
- FOOD CONSUMPTION, PRICES, AND EXPENDITURES 1960-81. November 1982. Stock No. 001-019-00330-8. \$5.50.
- RESEARCH FOR SMALL FARMS: PROCEEDINGS OF THE SPECIAL SYMPOSIUM. July 1982. Stock No. 001-000-04279-3. \$7.50.

New York City Family Budget Standard

The Community Council of Greater New York has revised its "Family Budget Standard--Components of a Moderate Level of Living in New York City." This is the first revision since 1970 of the series, which dates back to 1955. The family budget standard specifically focuses on how much self-supporting families need to live at a moderate level in New York City. The series assesses the components and costs of a "typical," not ideal, budget. A new market basket of goods and services was developed by the council. The new market basket reflects consumer behavior of the eighties and differs in a variety of ways from past standards.

The new standard contains quantity-cost specifications for various sizes of families and for individual family members, by age,

sex, and activity. The information is useful in family money management counseling, in determining ability of families to pay for social and health agency services, and in consumer education.

According to the new standard, the budget costs in 1981 for a self-supporting family of four¹ living in New York City, at the moderate level, was \$29,735 (see table). Budget costs are also provided for "new" households, including single parents (\$18,576), young singles (\$12,782), elderly singles (\$8,098), and retired couples (\$12,641).

A Family Budget Standard, dated July 1982, is available for \$6 from the Community Council of Greater New York, 225 Park Avenue South, New York City, N.Y. 10003.

¹The "index" family used in this publication includes two adults, ages 35-54, one of whom is a wage-earner; and two children, a boy of 13 and a girl of 8.

Budget costs for index family of 4 persons,¹ moderate level

[Prices as of October 1981, New York City]

Item	4-person family		Retired couple	
	<u>Year²</u>	<u>Week</u>	<u>Year²</u>	<u>Week</u>
Food	\$6,328	\$121.69	\$3,193	\$61.40
Housing	6,362	122.35	4,756	91.46
Clothing and upkeep	2,016	38.77	701	13.48
Personal care	695	13.37	444	8.54
Medical care.....	1,755	33.75	1,821	35.02
Transportation	1,259	24.21	811	15.60
Other goods and services.....	2,097	40.33	915	17.60
Total	20,512	394.46	12,641	243.10
Other costs and personal taxes	9,223	177.36	(3)	(3)
Total cost of budget	29,735	571.83	12,641	243.10

¹Index family includes 2 adults, ages 35 to 54, 1 of whom is a wage-earner; and 2 children a boy 13 and a girl 8.

²Column total may not add correctly because of rounding.

³Couples at this economic level may or may not be required to pay personal income taxes, depending on the source of their income.

Source: Community Council of Greater New York, 1982, A Family Budget Standard.

Updated Estimates of the Cost of Raising a Child

The cost of raising urban children: 1982 annual average; moderate-cost level ¹

Region and age of child (years)	Total	Food at home ²	Food away from home	Clothing	Housing ³	Medical care	Educational	Transportation	All other ⁴
NORTH CENTRAL:									
Under 1	\$3,977	\$539	\$0	\$132	\$1,747	\$244	\$0	\$806	\$509
1	4,099	661	0	132	1,747	244	0	806	509
2-3	3,816	661	0	214	1,535	244	0	702	460
4-5	4,043	759	129	214	1,535	244	0	702	460
6	4,201	734	129	296	1,456	244	107	702	533
7-9	4,373	906	129	296	1,456	244	107	702	533
10-11	4,544	1,077	129	296	1,456	244	107	702	533
12	4,855	1,102	155	427	1,509	244	107	754	557
13-15	4,977	1,224	155	427	1,509	244	107	754	557
16-17	5,469	1,371	155	592	1,562	244	107	832	606
Total	80,926	17,162	1,962	5,788	27,530	4,392	1,284	13,312	9,496
NORTHEAST:									
Under 1	3,947	636	0	132	1,773	244	0	702	460
1	4,094	783	0	132	1,773	244	0	702	460
2-3	3,982	759	0	230	1,615	244	0	650	484
4-5	4,209	857	129	230	1,615	244	0	650	484
6	4,496	857	155	312	1,588	244	133	650	557
7-9	4,667	1,028	155	312	1,588	244	133	650	557
10-11	4,887	1,248	155	312	1,588	244	133	650	557
12	5,190	1,248	155	460	1,641	244	133	728	581
13-15	5,337	1,395	155	460	1,641	244	133	728	581
16-17	5,729	1,542	181	575	1,668	244	133	780	606
Total	85,353	19,605	2,170	6,046	29,434	4,392	1,596	12,376	9,734
SOUTH:									
Under 1	4,325	588	0	148	1,879	271	0	858	581
1	4,447	710	0	148	1,879	271	0	858	581
2-3	4,165	685	0	230	1,668	271	0	754	557
4-5	4,368	759	129	230	1,668	271	0	754	557
6	4,605	759	155	312	1,588	271	160	754	606
7-9	4,752	906	155	312	1,588	271	160	754	606
10-11	4,948	1,102	155	312	1,588	271	160	754	606
12	5,275	1,102	181	460	1,641	271	160	806	654
13-15	5,421	1,248	181	460	1,641	271	160	806	654
16-17	5,831	1,371	181	592	1,694	271	160	884	678
Total	87,795	17,455	2,274	6,112	29,910	4,878	1,920	14,247	10,998
WEST:									
Under 1	4,259	588	0	132	1,826	298	0	858	557
1	4,405	734	0	132	1,826	298	0	858	557
2-3	4,174	710	0	214	1,641	298	0	754	557
4-5	4,427	808	155	214	1,641	298	0	754	557
6	4,732	783	181	312	1,615	298	133	780	630
7-9	4,904	955	181	312	1,615	298	133	780	630
10-11	5,124	1,175	181	312	1,615	298	133	780	630
12	5,411	1,175	181	444	1,668	298	133	858	654
13-15	5,533	1,297	181	444	1,668	298	133	858	654
16-17	6,076	1,469	207	559	1,747	298	133	936	727
Total	89,720	18,360	2,534	5,886	30,072	5,364	1,596	14,716	11,192

¹ Annual cost of raising a child from birth to age 18, by age, in a husband-wife family with no more than 5 children. For more information on these and additional child cost estimates, see USDA Miscellaneous Publication No. 1411 by Carolyn S. Edwards, "USDA Estimates of the Cost of Raising a Child: A Guide to Their Use and Interpretation." This publication is for sale by the U.S. Government Printing Office, Washington, D.C. 20402.

² Includes home-produced food and school lunches.

³ Includes shelter, fuel, utilities, household operations, furnishings, and equipment.

⁴ Includes personal care, recreation, reading, and other miscellaneous expenditures.

*The cost of raising rural nonfarm children: 1982 annual average; moderate-cost level*¹

Region and age of child (years)	Total	Food at home ²	Food away from home	Clothing	Housing ³	Medical care	Educa-tion	Transpor-tation	All other ⁴
NORTH CENTRAL:									
Under 1	\$3,757	\$490	\$0	\$115	\$1,668	\$244	\$0	\$780	\$460
1	3,879	612	0	115	1,668	244	0	780	460
2-3	3,451	588	0	181	1,403	217	0	650	412
4-5	3,651	685	103	181	1,403	217	0	650	412
6	3,929	685	129	279	1,376	217	107	676	460
7-9	4,076	832	129	279	1,376	217	107	676	460
10-11	4,272	1,028	129	279	1,376	217	107	676	460
12	4,600	1,028	129	427	1,429	217	107	754	509
13-15	4,723	1,151	129	427	1,429	217	107	754	509
16-17	5,074	1,273	155	526	1,456	244	107	780	533
Total	75,458	15,912	1,806	5,388	25,832	4,014	1,284	12,792	8,430
NORTHEAST:									
Under 1	4,359	588	0	132	1,879	244	0	910	606
1	4,481	710	0	132	1,879	244	0	910	606
2-3	4,277	685	0	214	1,721	244	0	832	581
4-5	4,530	783	155	214	1,721	244	0	832	581
6	4,836	783	181	312	1,694	244	160	832	630
7-9	4,983	930	181	312	1,694	244	160	832	630
10-11	5,204	1,151	181	312	1,694	244	160	832	630
12	5,522	1,151	181	477	1,747	244	160	884	678
13-15	5,668	1,297	181	477	1,747	244	160	884	678
16-17	6,169	1,444	207	625	1,800	244	160	962	727
Total	91,511	18,039	2,534	6,150	31,394	4,392	1,920	15,600	11,482
SOUTH:									
Under 1	4,507	588	0	148	1,879	271	0	1,040	581
1	4,604	685	0	148	1,879	271	0	1,040	581
2-3	4,168	661	0	230	1,615	271	0	858	533
4-5	4,421	759	155	230	1,615	271	0	858	533
6	4,580	734	155	312	1,562	271	133	832	581
7-9	4,727	881	155	312	1,562	271	133	832	581
10-11	4,923	1,077	155	312	1,562	271	133	832	581
12	5,294	1,077	181	477	1,615	271	133	910	630
13-15	5,417	1,200	181	477	1,615	271	133	910	630
16-17	5,888	1,346	207	674	1,641	271	133	962	654
Total	88,217	17,013	2,378	6,344	29,332	4,878	1,596	16,068	10,608
WEST:									
Under 1	4,666	588	0	132	1,906	298	0	1,040	702
1	4,788	710	0	132	1,906	298	0	1,040	702
2-3	4,325	685	0	214	1,641	271	0	884	630
4-5	4,578	783	155	214	1,641	271	0	884	630
6	4,902	759	155	329	1,615	298	160	884	702
7-9	5,073	930	155	329	1,615	298	160	884	702
10-11	5,269	1,126	155	329	1,615	298	160	884	702
12	5,639	1,126	181	493	1,668	298	160	962	751
13-15	5,786	1,273	181	493	1,668	298	160	962	751
16-17	6,348	1,444	207	575	1,773	298	160	1,092	799
Total	93,612	17,868	2,378	6,216	30,284	5,256	1,920	16,952	12,738

¹Annual cost of raising a child from birth to age 18, by age, in a husband-wife family with no more than 5 children. For more information on these and additional child cost estimates, see USDA Miscellaneous Publication No. 1411 by Carolyn S. Edwards, "USDA Estimates of the Cost of Raising a Child: A Guide to Their Use and Interpretation." This publication is for sale by the U.S. Government Printing Office, Washington, D.C. 20402.

²Includes home-produced food and school lunches.

³Includes shelter, fuel, utilities, household operations, furnishings, and equipment.

⁴Includes personal care, recreation, reading, and other miscellaneous expenditures.

Cost of Food at Home, U.S. and Regions

Cost of food at home estimated for food plans at 4 cost levels, January 1983, U.S. average¹

Sex-age group	Cost for 1 week			Cost for 1 month		
	Thrifty plan ²	Low-eost plan	Moderate-eost plan	Liberal plan	Thrifty plan	Low-eost plan
FAMILIES						
Family of 2: ³						
20-54 years	\$33.90	\$43.80	\$54.80	\$65.60	\$146.60	\$189.40
55 years and over	30.40	39.00	48.30	57.50	131.90	169.00
Family of 4:						
Couple, 20-54 years and ehildren--						
1-2 and 3-5 years	48.10	61.40	76.50	91.50	208.00	265.90
6-8 and 9-11 years	58.00	74.30	93.00	111.20	251.10	321.60
INDIVIDUALS ⁴						
Child:						
7 months to 1 year	6.90	8.30	10.20	12.00	29.90	36.10
1-2 years	7.80	9.80	12.10	14.40	33.70	42.70
3-5 years	9.50	11.80	14.60	17.50	41.00	51.00
6-8 years	12.10	15.30	19.20	22.90	52.20	66.40
9-11 years	15.10	19.20	24.00	28.70	65.60	83.00
Male:						
12-14 years	16.10	20.30	25.40	30.40	69.80	88.10
15-19 years	17.70	22.40	28.10	33.70	76.50	97.20
20-54 years	17.00	22.00	27.70	33.30	73.50	95.30
55 years and over	15.10	19.40	24.10	28.90	65.50	84.00
Female:						
12-19 years	14.30	18.20	22.50	26.70	61.90	78.70
20-54 years	13.80	17.80	22.10	26.30	59.80	76.90
55 years and over	12.50	16.10	19.80	23.40	54.40	69.60
Pregnant	17.30	22.00	27.00	32.10	74.80	95.10
Nursing	18.30	23.30	29.00	34.40	79.50	100.90

¹Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for each plan were computed from quantities of foods published in the Winter 1976 (thrifty plan) and Winter 1975 (low-eost, moderate-eost, and liberal plans) issues of Family Economics Review. The costs of the food plans were first estimated using prices paid in 1965-66 by households from USDA's Household Food Consumption Survey with food costs at 4 selected levels. USDA updates these survey prices to estimate the current costs for the food plans using information from the Bureau of Labor Statistics: "Estimated Retail Food Prices by Cities" from 1965-66 to 1977 and "CPI Detailed Report," tables 3 and 9, after 1977.

²Coupon allotment in the Food Stamp Program based on this food plan.

³10 percent added for family size adjustment. See footnote 4.

⁴The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person--add 20 percent; 2-person--add 10 percent; 3-person--add 5 percent; 5- or 6- person--subtract 5 percent; 7- or more-person--subtract 10 percent.

*Cost of food at home for food plans at 3 cost levels, January 1983, Northeast region*¹

Sex-age group	Cost for 1 week			Cost for 1 month		
	Low-cost plan	Moderate-cost plan	Liberal plan	Low-cost plan	Moderate-cost plan	Liberal plan
FAMILIES						
Family of 2: ²						
20-54 years	\$46.00	\$59.10	\$71.30	\$199.40	\$255.80	\$308.90
55 years and over.....	40.90	51.80	62.30	176.90	224.30	270.20
Family of 4:						
Couple, 20-54 years and children--						
1-2 and 3-5 years	64.50	82.20	99.20	279.50	356.20	430.10
6-8 and 9-11 years ...	78.00	100.10	120.70	338.20	433.20	522.90
INDIVIDUALS ³						
Child:						
7 months to 1 year	8.50	10.70	12.70	37.00	46.40	55.10
1-2 years	10.30	12.90	15.50	44.60	56.00	67.30
3-5 years	12.40	15.60	18.90	53.60	67.70	82.00
6-8 years	16.10	20.60	24.80	69.80	89.10	107.50
9-11 years	20.10	25.80	31.10	87.10	111.60	134.60
Male:						
12-14 years	21.50	27.40	33.00	93.00	118.80	143.10
15-19 years	23.60	30.30	36.60	102.40	131.10	158.50
20-54 years	23.10	29.90	36.20	100.30	129.40	156.90
55 years and over.....	20.40	25.90	31.30	88.20	112.20	135.80
Female:						
12-19 years	19.00	24.10	29.00	82.50	104.60	125.70
20-54 years	18.70	23.80	28.60	81.00	103.10	123.90
55 years and over.....	16.80	21.20	25.30	72.60	91.70	109.80
Pregnant	23.00	29.00	34.80	99.80	125.70	150.70
Nursing	24.50	31.10	37.30	106.00	134.90	161.70

¹ Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for each plan were computed from quantities of foods published in the Winter 1975 issue of *Family Economics Review*. The costs of the food plans were first estimated using prices paid in 1965-66 by households in the Northeast region from the USDA's Household Food Consumption Survey with food costs at 3 selected levels. These prices are updated by use of "Estimated Retail Food Prices by Cities" (Boston; New York and northeastern New Jersey; Philadelphia) released monthly by the Bureau of Labor Statistics.

² 10 percent added for family size adjustment. See footnote 3.

³ The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person--add 20 percent; 2-person--add 10 percent; 3-person--add 5 percent; 5- or 6-person--subtract 5 percent; 7-or-more-person--subtract 10 percent.

*Cost of food at home for food plans at 3 cost levels, January 1983, North Central region*¹

Sex-age groups	Cost for 1 week			Cost for 1 month		
	Low-cost plan	Moderate-cost plan	Liberal plan	Low-cost plan	Moderate-cost plan	Liberal plan
FAMILIES						
Family of 2: ²						
20-54 years	\$44.80	\$55.20	\$66.80	\$194.40	\$239.30	\$289.40
55 years and over.....	40.00	48.80	58.90	173.60	211.40	254.80
Family of 4:						
Couple, 20-54 years and children--						
1-2 and 3-5 years	63.10	77.50	93.50	274.00	335.70	404.90
6-8 and 9-11 years ...	76.50	94.30	113.90	331.90	408.60	493.40
INDIVIDUALS ³						
Child:						
7 months to 1 year	8.60	10.30	12.20	37.30	44.80	52.90
1-2 years	10.20	12.40	14.80	44.30	53.70	63.90
3-5 years	12.20	14.90	18.00	53.00	64.50	77.90
6-8 years	15.90	19.60	23.60	69.00	84.80	102.20
9-11 years	19.90	24.50	29.60	86.20	106.30	128.10
Male:						
12-14 years	21.10	25.90	31.20	91.40	112.30	135.30
15-19 years	23.20	28.50	34.50	100.40	123.70	149.60
20-54 years	22.50	27.90	33.90	97.70	121.10	146.90
55 years and over.....	19.90	24.40	29.50	86.30	105.50	127.80
Female:						
12-19 years	18.80	22.90	27.50	81.30	99.10	119.00
20-54 years	18.20	22.30	26.80	79.00	96.40	116.20
55 years and over.....	16.50	20.00	24.00	71.50	86.70	103.80
Pregnant	22.50	27.30	32.70	97.70	118.20	141.80
Nursing	23.90	29.20	35.10	103.50	126.60	152.00

¹Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for each plan were computed from quantities of foods published in the Winter 1975 issue of Family Economics Review. The costs of the food plans were first estimated using prices paid in 1965-66 by households in the North Central region from the USDA's Household Food Consumption Survey with food costs at 3 selected levels. These prices are updated by use of "Estimated Retail Food Prices by Cities" (Chicago, Cleveland, Detroit, St. Louis) released monthly by the Bureau of Labor Statistics.

²10 percent added for family size adjustment. See footnote 3.

³The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person--add 20 percent; 2-person--add 10 percent; 3-person--add 5 percent; 5- or 6-person--subtract 5 percent; 7-or-more-person--subtract 10 percent.

*Cost of food at home for food plans at 3 cost levels, January 1983, Southern region*¹

Sex-age groups	Cost for 1 week			Cost for 1 month		
	Low-cost plan	Moderate-cost plan	Liberal plan	Low-cost plan	Moderate-cost plan	Liberal plan
FAMILIES						
Family of 2: ²						
20-54 years	\$43.20	\$53.90	\$64.30	\$187.10	\$233.60	\$279.20
55 years and over	38.20	47.10	56.10	165.30	203.90	242.60
Family of 4:						
Couple, 20-54 years and children--						
1-2 and 3-5 years	60.40	74.90	89.40	261.40	324.70	387.80
6-8 and 9-11 years ...	73.10	91.20	109.00	316.80	395.60	472.40
INDIVIDUALS³						
Child:						
7 months to 1 year	8.00	9.70	11.40	34.50	42.10	49.50
1-2 years	9.60	11.70	13.90	41.50	50.80	60.20
3-5 years	11.50	14.20	17.00	49.80	61.50	73.80
6-8 years	15.00	18.70	22.40	65.10	81.20	97.00
9-11 years	18.80	23.50	28.10	81.60	102.00	121.60
Male:						
12-14 years	20.10	25.00	29.90	87.10	108.50	129.60
15-19 years	22.20	27.70	33.20	96.30	120.10	143.90
20-54 years	21.70	27.20	32.60	93.90	117.90	141.40
55 years and over	19.00	23.50	28.10	82.10	101.60	121.50
Female:						
12-19 years	18.00	22.20	26.40	78.20	96.30	114.50
20-54 years	17.60	21.80	25.90	76.20	94.50	112.40
55 years and over	15.70	19.30	22.90	68.20	83.80	99.00
Pregnant	21.70	26.70	31.70	94.10	115.90	137.40
Nursing	23.00	28.60	34.00	99.80	124.00	147.20

¹Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for each plan were computed from quantities of foods published in the Winter 1975 issue of Family Economics Review. The costs of the food plans were first estimated using prices paid in 1965-66 by households in the South from the USDA's Household Food Consumption Survey with food costs at 3 selected levels. These prices are updated by use of "Estimated Retail Food Prices by Cities" (Atlanta; Baltimore; Washington, D.C.; Maryland; Virginia) released monthly by the Bureau of Labor Statistics.

²10 percent added for family size adjustment. See footnote 3.

³The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person--add 20 percent; 2-person--add 10 percent; 3-person--add 5 percent; 5- or 6-person--subtract 5 percent; 7-or-more-person--subtract 10 percent.

*Cost of food at home for food plans at 3 cost levels, January 1983, Western region*¹

Sex-age groups	Cost for 1 week			Cost for 1 month		
	Low-cost plan	Moderate-cost plan	Liberal plan	Low-cost plan	Moderate-cost plan	Liberal plan
FAMILIES						
Family of 2: ²						
20-54 years	\$45.30	\$56.80	\$68.20	\$196.40	\$246.10	\$295.60
55 years and over.....	40.50	49.90	60.00	175.20	216.70	259.50
Family of 4:						
Couple, 20-54 years and children--						
1-2 and 3-5 years	63.90	79.50	95.70	277.00	344.50	414.90
6-8 and 9-11 years ...	77.50	96.90	116.70	335.90	419.60	505.60
INDIVIDUALS³						
Child:						
7 months to 1 year	8.60	10.40	12.60	37.40	45.00	54.80
1-2 years	10.30	12.60	15.20	44.80	54.70	65.90
3-5 years	12.40	15.30	18.50	53.70	66.10	80.30
6-8 years	16.10	20.10	24.30	70.00	86.90	105.20
9-11 years	20.20	25.20	30.40	87.40	109.00	131.70
Male:						
12-14 years	21.40	26.70	32.20	92.80	115.60	139.60
15-19 years	23.50	29.30	35.50	101.60	126.90	153.70
20-54 years	22.80	28.70	34.60	98.70	124.40	149.80
55 years and over.....	20.10	24.90	30.00	87.10	108.10	129.90
Female:						
12-19 years	19.10	23.50	28.30	82.60	101.90	122.70
20-54 years	18.40	22.90	27.40	79.80	99.30	118.90
55 years and over.....	16.70	20.50	24.50	72.20	88.90	106.00
Pregnant	22.70	28.10	33.50	98.50	121.60	145.40
Nursing	24.10	30.10	35.90	104.50	130.30	155.70

¹Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for each plan were computed from quantities of foods published in the Winter 1975 issue of Family Economics Review. The costs of the food plans were first estimated using prices paid in 1965-66 by households in the West from the USDA's Household Food Consumption Survey with food costs at 3 selected levels. These prices are updated by use of "Estimated Retail Food Prices by Cities" (Los Angeles, San Francisco, Oakland) released monthly by the Bureau of Labor Statistics.

²10 percent added for family size adjustment. See footnote 3.

³The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person--add 20 percent; 2-person--add 10 percent; 3-person--add 5 percent; 5- or 6-person--subtract 5 percent; 7-or-more-person--subtract 10 percent.

Consumer Prices

Consumer Price Index for all urban consumers [1967 = 100]

Group	Jan. 1983	Dec. 1982	Nov. 1982	Jan. 1982
All items	293.1	292.4	293.6	282.5
Food	288.1	286.5	286.4	281.0
Food at home	279.3	277.8	278.3	275.3
Food away from home	314.5	312.6	311.4	299.8
Housing	317.9	316.3	319.0	306.1
Shelter	338.3	333.9	340.7	328.3
Rent, residential ¹	232.2	230.8	230.2	217.8
Fuel and other utilities	365.4	364.1	362.2	336.2
Fuel oil, coal, and bottled gas	671.1	688.5	691.3	686.0
Gas (piped) and electricity	413.5	410.6	407.6	367.4
Household furnishings and operation...	235.8	235.7	235.1	228.4
Apparel and upkeep	191.0	193.6	195.4	187.3
Men's and boys'	184.9	187.4	189.0	178.7
Women's and girls'	153.9	159.6	162.2	154.3
Footwear	204.8	205.9	206.9	202.8
Transportation	293.0	294.8	295.8	289.9
Private	288.4	290.4	291.4	286.6
Public	357.7	355.6	356.0	334.9
Medical care	347.8	344.3	342.2	313.4
Entertainment	241.5	240.1	239.9	229.2
Other goods and services	279.9	276.6	273.8	248.4
Personal care	256.1	254.8	254.2	240.9

¹ See "Consumer Price Index: Changes in Homeownership Component," Family Economics Review 1983(1):32 for explanation of rental equivalence measure.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

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Highlights

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Family Financial Management Sourcebook

USDA 1983 Family Food Plans